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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/728,787	12/08/2003	Ho-Kyoon Chung	6161.0108.US	2371

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EXAMINER

ARANCIBIA, MAUREEN GRAMAGLIA

ART UNIT PAPER NUMBER

1763

DATE MAILED: 11/16/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/728,787

Applicant(s)

CHUNG ET AL

Examiner

Maureen G. Arancibia

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 August 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1,2,4-6,8,11 and 13 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1,2,4-6,8,11 and 13 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 30 August 2005 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 30 August 2005 has been entered.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

3. **Claim 1, 2, 4-6, 8, 11, and 13 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement.**

The claim(s) contains subject matter that was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. Specifically, the amendment to independent claims 1 and 5 to recite that the image display device is surrounded by an inner sealant having no plugged openings therein appears to introduce new matter. The Examiner notes that it has been held that negative limitations recited to overcome prior art can be considered new matter. *Ex*

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Parte Grasselli et al. 231 USPQ 393. Applicant is requested to identify the support for this amendment in the original disclosure.

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. **Claims 1, 2, 4-6, 8, 11, and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,391,137 to Matsushima in view of U.S. Patent 5,766,493 to Shin, U.S. Patent 6,908,638 to Ueda et al., and U.S. Patent 5,361,152 to Harada et al.**

In regards to Claims 1, 5, 11, and 13, Matsushima teaches a prior art method of manufacturing a thin flat panel display (Figure 12), comprising: preparing an etchable upper substrate 2 and an etchable lower substrate 1; forming image display devices (Column 1, Lines 45-49) on an inner surface of the lower substrate, and isolating them within device divisions 6; combining the upper and lower substrates, such that the image display devices are each completely surrounded by an inner sealant 3 (made continuous by filling injection hole 3a; Column 1, Lines 50-54 and 64-67; Figure 12); etching the outer surfaces of the upper and lower substrates (Column 2, Lines 15-20); and cutting the combined upper and lower substrates into individual image display units (Column 3, Lines 1-5). Each of the image display devices are completely surrounded

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by an inner sealant 3, and all of the image display devices and the inner sealants are surrounded by an outer sealant 4. (Figure 12; Column 1, Lines 54-56)

Matsushima does not expressly teach that the combining *further* comprises attaching an unetchable protection film to all of each lateral side of the combined upper and lower substrates.

Shin teaches a method of combining an upper and lower substrate 20, 20, wherein an image display device is surrounded by an inner sealant 14 and an outer sealant 19, and an unetchable protection film 15 is additionally attached to all of each lateral side of the upper and lower substrates 20, 20. (Figure 3D; Column 3, Line 53 - Column 4, Line 14)

It would have been obvious to one of ordinary skill in the art to modify the method taught by Matsushima to *additionally* attach an unetchable protection film to all of each lateral side of the combined upper and lower substrates. The motivation for doing so, as taught by Shin (Column 4, Lines 10-14), would have been to prevent foreign materials or strong acid from entering between the first and second substrates during etching.

The combination of Matsushima and Shin does not expressly teach that each image display device is an organic EL display device.

Ueda et al. teaches that display devices can be organic EL display devices, formed by coating an organic luminescing layer 3. (Column 1, Lines 15-26; Column 2, Lines 10-15; Column 6, Lines 5-6)

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It would have been obvious to one of ordinary skill in the art to modify the methods taught by Matsushima and Shin to form organic EL display devices. The motivation for making such a modification, as taught by Ueda et al. (Column 2, Lines 10-15), would have been to obtain thin display devices with stable luminescence characteristics.

The combination of Matsushima, Shin, and Ueda et al. does not expressly teach that each of the inner sealants has no plugged openings therein.

Harada et al. teaches that an inner sealant 2 surrounding a coated image display device 3 has no plugged openings therein. (Figures 1a and 1b; Column 3, Line 4 - Column 4, Line 1)

It would have been obvious to one of ordinary skill in the art to modify the combination of Matsushima, Shin, and Ueda et al. to form the inner sealants with no plugged openings therein. The motivation for making such a modification would have been that since the organic EL display device would be coated on the substrate (Ueda et al., Column 2, Lines 10-15), no opening is necessary for the injection of liquid crystals. Moreover, it has been held that omission of an element and its function is obvious if the function of the element is not desired. See *Ex parte Wu*, 10 USPQ 2031 (Bd. Pat. App. & Inter. 1989); *In re Larson*, 340 F.2d 965, 144 USPQ 347 (CCPA 1965); and *In re Kuhle*, 526 F.2d 553, 188 USPQ 7 (CCPA 1975).

In regards to Claims 2 and 6, the upper and lower substrates 1, 2, are formed of glass. (Column 1, Line 45)

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In regards to Claims 4 and 8, Matsushima does not expressly disclose that the prior art method can be used to etch the substrates to each have a thickness of at most 0.5 mm.

However, Matsushima teaches another method in which each of the upper and lower substrates 100, 101, is etched to each have a thickness of about 0.3 to 0.7 mm. (Column 9, Lines 1-3)

It would have been obvious to one of ordinary skill in the art to modify the prior art method disclosed by Matsushima to etch the substrates 1, 2, to each have a thickness of at most 0.5 mm. The motivation for doing so, as taught by Matsushima (Column 1, Lines 23), would have been to make a lightweight display device.

Response to Arguments

6. Applicant's arguments with respect to the pending claims have been considered but are moot in view of the new ground(s) of rejection.

Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Maureen G. Arancibia whose telephone number is (571) 272-1219. The examiner can normally be reached on core hours of 10-5, Monday-Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on (571) 272-1435. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

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Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



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